(FILE 'HOME' ENTERED AT 16:47:27 ON 03 JUN 2003)

FILE 'BIOSIS, CABA, CAPLUS, EMBASE, LIFESCI, MEDLINE, SCISEARCH, USPATFULL, JAPIO' ENTERED AT 16:47:38 ON 03 JUN 2003

L1	71254	S	SOD
L2	0	S	L1 AND SUPEROXIMUTASE
L3	53555	S	L1 AND SUPEROXIDE
L4	53555	S	L1 AND L3
L5	52514	S	L4 AND DISMUTASE
L6	9832	S	L5 AND COPPER
L7	7665	S	L6 AND ZINC
L8	156	S	L7 AND DIMERIC
L9	82	DUP REM	L8 (74 DUPLICATES REMOVED)
L10	20	S	L9 AND ANTIBOD?

10 ANSWER 1 OF 20 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AB Rice [Oryza sativa] leaves and seed embryos contain four isozymes of CuZn-**superoxide dismutase** (**SOD**) and two isozymes of Mn-**SOD**. CuZn-**SOD** I is a major enzymein leaves, but not in embryos or etiolated seedlings. CuZn-**SODs** II, III and IV were found in the embryos but were also found as minor isozymes in leaves. CuZn-**SODs** I, II and IV were purified to homogeneity from rice leaves. CuZn-**SODs** I and II had similar properties with respect to molecular weight, **dimeric** structure, absorption spectrum and metal content, but their amino acid composition differed from each other. The absorption spectrum of CuZn-**SOD** IV was similar to that of isozymes I and II, but this enzyme was a monomer with a molecular mass of 1.7kDa. **Antibody** against CuZn-**SOD** I from rice did not cross-react with isozymes II and IV. **Antibodies** against CuZn-**SOD** from spinach leaves cross-reacted with isozyme I but not with isozymes II, III and IV. By contrast the **antibodies** against CuZn-**SOD** from spinach seeds cross-reacted with isozymes II, III and IV but not with isozyme I. Thus, the isozyme that is expressed mainly in leaves (CuZn-**SOD** I) and the isozymes expressed mainly in non-photosynthetic tissue (CuZn-**SODs** II, III, IV) are immunologically distinct.
AN 1989:294312 BIOSIS
DN BA88:19656
TI **COPPER-ZINC SUPEROXIDE DISMUTASES** IN RICE OCCURRENCE OF AN ACTIVE MONOMERIC ENZYME AND TWO TYPES OF ISOZYME IN LEAF AND NON-PHOTOSYNTHETIC TISSUES.
AU KANEMATSU S; ASADA K
CS RES. INST. FOOD SCI., KYOTO UNIV., UJI, KYOTO, 611 JPN.
SO PLANT CELL PHYSIOL, (1989) 30 (3), 381-392.
CODEN: PCPHA5. ISSN: 0032-0781.
FS BA; OLD
LA English

L10 ANSWER 2 OF 20 CAPLUS COPYRIGHT 2003 ACS
AB The present invention relates to pharmaceutical compns. comprising Cu,Zn-**superoxide dismutase** (Cu,Zn-**SOD**) of the **dimeric** type, nucleic acid encoding a Cu,Zn-**SOD**, or **antibody** to a Cu,Zn-**SOD** for treating and/or vaccinating against bacterial infection. Also described are methods for isolation of Cu,Zn-**SODs** and for prepn. of pharmaceutical compns., preferably for providing or eliciting protective immunity to meningococcal infection in an animal.
AN 2000:161457 CAPLUS
DN 132:206934
TI Cu,Zn-**Superoxide dismutase** or **antibody** thereto as vaccine against bacterial (including meningococcal) infection
IN Gorringe, Andrew Richard; Kroll, John Simon; Langford, Paul Richard; Robinson, Andrew
PA Microbiological Research Authority, UK; Imperial College of Science, Technology and Medicine
SO PCT Int. Appl., 27 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2000012718	A1	20000309	WO 1999-GB2828	19990827

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CA	2341639	AA	20000309	CA 1999-2341639	19990827
AU	9956350	A1	20000321	AU 1999-56350	19990827
EP	1108038	A1	20010620	EP 1999-943065	19990827
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP	2002523521	T2	20020730	JP 2000-567704	19990827
PRAI GB	1998-18756	A	19980827		
WO	1999-GB2828	W	19990827		

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 3 OF 20 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.

AB **Superoxide dismutase** from Taenia solium cysticerci (Ts **SOD**) was purified by sequential ion exchange chromatography on quaternary-amino-ethyl-cellulose (QAE) followed by hydrophobic interaction on phenyl sepharose (PS) and chromatofocusing on a polybuffer exchanger 94 (PBE). Ts **SOD** is a 30 kDa molecular weight **dimeric** enzyme with 15 kDa monomers. It is partially negative, hydrophilic, with 6.3 isoelectric point and has 2,900 U/mg activity. Bovine erythrocyte **SOD antibodies** cross react with Ts **SOD**. This enzyme is 80% inhibited by 10 mM of KCN suggesting that it has a Cu/Zn active site. Furthermore, Ts **SOD** totally loses its activity at. 100.degree.C for 4 min. The first 25 amino acids from the Ts **SOD** N-terminal are (M K A V X V M R G E E G V K G V V H F T Q A G D A). This sequence is 76% similar to the Schistosoma mansoni Cu/Zn **SOD**. By chance, myoglobin (Mb) was also found during the purification process. A 16 kDa band was recognized in immunoblotting by horse heart Mb **antibodies** in QAE, PS and PBE, the last-mentioned being found at pH 7.0. The first 15 amino acids from the amino terminal group (G L S D G E W Q L V L N V W G) in this 16 kDa protein are identical to several other Mbs which have been reported.

AN 2002331079 EMBASE

TI Purification of Taenia solium cysticerci **superoxide dismutase** and myoglobin copurification.

AU Gonzalez R.; Mendoza-Hernandez G.; Plancarte A.

CS A. Plancarte, Depto. de Microbiol. y Parasitologia, UNAM, Ciudad Universitaria, 04510 Mexico, DF, Mexico. apc@servidor.unam.mx

SO Parasitology Research, (2002) 88/10 (881-887).
Refs: 31
ISSN: 0932-0113 CODEN: PARREZ

CY Germany

DT Journal; Article

FS 004 Microbiology
027 Biophysics, Bioengineering and Medical Instrumentation

LA English

SL English

L10 ANSWER 4 OF 20 USPATFULL

AB The invention encompasses compounds, analogs, prodrugs and pharmaceutically acceptable salts thereof, pharmaceutical compositions, uses and methods for prophylaxis and treatment of cancer and angiogenesis-related disease.

AN 2003:127693 USPATFULL

TI Substituted triazinyl amide derivatives and methods of use

IN Geuns-Meyer, Stephanie D., Medford, MA, UNITED STATES
DiPietro, Lucian V., Gloucester, MA, UNITED STATES
Kim, Joseph L., Wayland, MA, UNITED STATES
Patel, Vinod F., Acton, MA, UNITED STATES

PI	US 2003087908	A1	20030508
AI	US 2002-120939	A1	20020410 (10)
PRAI	US 2001-282977P		20010411 (60)

DT Utility
FS APPLICATION
LREP U.S. Patent Operations/JWB, Dept. 4300, M/S 27-4-A, AMGEN INC, One Amgen Center Drive, Thousand Oaks, CA, 91320-1799
CLMN Number of Claims: 19
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 4235
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 5 OF 20 USPATFULL
AB The present invention relates, in general, to cancer therapy, and, in particular, to a method of preventing or treating cancer using low molecular weight antioxidants (e.g., mimetics of **superoxide dismutase** (**SOD**)) as the active agent or as a chemo- and/or radio-protectant. The invention also relates to compounds and compositions suitable for use in such a method.
AN 2003:72010 USPATFULL
TI Cancer therapy
IN Crapo, James D., Englewood, CO, UNITED STATES
Day, Brian J., Englewood, CO, UNITED STATES
Batinic-Haberle, Ines, Durham, NC, UNITED STATES
Gammans, Richard, Research Triangle Park, NC, UNITED STATES
Vujaskovic, Zeljko, Durham, NC, UNITED STATES
PI US 2003050297 A1 20030313
AI US 2002-51367 A1 20020122 (10)
PRAI US 2001-262390P 20010119 (60)
DT Utility
FS APPLICATION
LREP NIXON & VANDERHYE P.C., 8th Floor, 1100 North Glebe Road, Arlington, VA, 22201
CLMN Number of Claims: 28
ECL Exemplary Claim: 1
DRWN 34 Drawing Page(s)
LN.CNT 1029
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 6 OF 20 USPATFULL
AB The present invention relates, in one embodiment, to a method of preventing or treating diabetes using low molecular weight antioxidants. In a further embodiment, the invention relates to a method of protecting and/or enhancing viability of cells/tissues/organs during isolation (harvesting), preservation, expansion and/or transplantation. In yet another embodiment, the present invention relates to a method of inducing immune tolerance. The invention also relates to compounds and compositions suitable for use in such methods.
AN 2003:45322 USPATFULL
TI Oxidant scavengers for treatment of diabetes or use in transplantation or induction of immune tolerance
IN Piganelli, Jon D., Pittsburgh, PA, UNITED STATES
Haskins, Kathryn, Denver, CO, UNITED STATES
Flores, Sonia C., Denver, CO, UNITED STATES
Crapo, James D., Denver, CO, UNITED STATES
Day, Brian J., Denver, CO, UNITED STATES
Gill, Ronald G., Denver, CO, UNITED STATES
Gammans, Richard, Research Triangle Park, NC, UNITED STATES
Patel, Manisha, Denver, CO, UNITED STATES
PI US 2003032634 A1 20030213
AI US 2002-159280 A1 20020603 (10)
PRAI US 2001-294604P 20010601 (60)
US 2001-328398P 20011012 (60)
DT Utility
FS APPLICATION
LREP NIXON & VANDERHYE P.C., 8th Floor, 1100 North Glebe Road, Arlington, VA,

22201
CLMN Number of Claims: 24
ECL Exemplary Claim: 1
DRWN 28 Drawing Page(s)
LN.CNT 1272
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 7 OF 20 USPATFULL
AB This invention features methods for identifying agents that modulate protein aggregation or stabilize protein conformation. Exemplary methods include an in vitro aggregation assay, a native state stabilization assay, a cell-based screening assay, and an animal-based screening assay. These methods can be used to identify agents useful for the treatment of conformational diseases resulting from aggregation of a protein.
AN 2003:30296 USPATFULL
TI Protein aggregation assays and uses thereof
IN Kondejewski, Les, St. Lazare, CANADA
Chakrabartty, Avijit, Vaughan, CANADA
Qi, Xiao-Fei, Toronto, CANADA
Cashman, Neil, Toronto, CANADA
PI US 2003022243 A1 20030130
AI US 2002-176809 A1 20020620 (10)
PRAI US 2001-299849P 20010620 (60)
DT Utility
FS APPLICATION
LREP CLARK & ELBING LLP, 101 FEDERAL STREET, BOSTON, MA, 02110
CLMN Number of Claims: 115
ECL Exemplary Claim: 1
DRWN 23 Drawing Page(s)
LN.CNT 2602
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 8 OF 20 USPATFULL
AB The invention relates to novel wound coverings with which interfering factors of the wound healing process can be removed from the wound fluid of chronic wounds in a controlled manner and the normal healing process is promoted.
AN 2002:343534 USPATFULL
TI Wound coverings for removal of interfering factors from wound fluid
IN Meyer-Ingold, Wolfgang, Hamburg, GERMANY, FEDERAL REPUBLIC OF
Eichner, Wolfram, Butzbach, GERMANY, FEDERAL REPUBLIC OF
Ettner, Norbert, Neu Wulmstorf, GERMANY, FEDERAL REPUBLIC OF
Schink, Michael, Hamburg, GERMANY, FEDERAL REPUBLIC OF
PA Beiersdorf AG (non-U.S. corporation)
PI US 2002197257 A1 20021226
AI US 2002-150015 A1 20020520 (10)
RLI Continuation of Ser. No. US 2001-932926, filed on 21 Aug 2001, ABANDONED
Continuation of Ser. No. US 2000-675253, filed on 29 Sep 2000, ABANDONED
Division of Ser. No. US 1999-276687, filed on 26 Mar 1999, GRANTED, Pat. No. US 6156334
PRAI DE 1998-19813663 19980327
DT Utility
FS APPLICATION
LREP NIXON & VANDERHYE P.C., 8th Floor, 1100 North Glebe Rd., Arlington, VA, 22201-4714
CLMN Number of Claims: 28
ECL Exemplary Claim: 1
DRWN 4 Drawing Page(s)
LN.CNT 1276

L10 ANSWER 9 OF 20 USPATFULL
AB Selected compounds are effective for prophylaxis and treatment of diseases, such as angiogenesis mediated diseases. The invention

encompasses novel compounds, analogs, prodrugs and pharmaceutically acceptable derivatives thereof, pharmaceutical compositions and methods for prophylaxis and treatment of diseases and other maladies or conditions involving, cancer and the like. The subject invention also relates to processes for making such compounds as well as to intermediates useful in such processes.

AN 2002:266319 USPATFULL
TI Substituted arylamine derivatives and methods of use
IN Chen, Guoqing, Thousand Oaks, CA, UNITED STATES
Cai, Guolin, Thousand Oaks, CA, UNITED STATES
Dominguez, Celia, Thousand Oaks, CA, UNITED STATES
Germain, Julie, Somerville, MA, UNITED STATES
Kim, Joseph L., Wayland, MA, UNITED STATES
Kim, Tae-Seong, Thousand Oaks, CA, UNITED STATES
Smith, Leon M., Somerset, NJ, UNITED STATES
Tasker, Andrew, Simi Valley, CA, UNITED STATES
Yuan, Chester Chenguang, Newbury Park, CA, UNITED STATES
Booker, Shon, Newbury Park, CA, UNITED STATES
Croghan, Michael, Ventura, CA, UNITED STATES
DiPietro, Lucian, Gloucester, MA, UNITED STATES
Elbaum, Daniel, Newton, MA, UNITED STATES
Huang, Qi, Moorpark, CA, UNITED STATES
Xi, Ning, Thousand Oaks, CA, UNITED STATES
Xu, Shimin, Newbury Park, CA, UNITED STATES
Patel, Vinod F., Acton, MA, UNITED STATES
PI US 2002147198 A1 20021010
AI US 2002-46526 A1 20020110 (10)
PRAI US 2001-261360P 20010112 (60)
US 2001-323686P 20010919 (60)
DT Utility
FS APPLICATION
LREP U.S. Patent Operations/JWB, Dept. 4300, M/S 27-4-A, AMGEN INC., One Amgen Center Drive, Thousand Oaks, CA, 91320-1799
CLMN Number of Claims: 17
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 5854
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 10 OF 20 USPATFULL
AB The invention relates to the identification of pharmacological agents to be used in the treatment of Alzheimer's disease and related pathological conditions and compositions for treatment of conditions caused by amyloidosis, A.beta.-mediated formation of ROS, or both, such as Alzheimer's disease, are disclosed.
AN 2002:157666 USPATFULL
TI Agents for use in the treatment of alzheimer's disease
IN Bush, Ashley I., Somerville, MA, UNITED STATES
Huang, Xudong, Cambridge, MA, UNITED STATES
Atwood, Craig S., Somerville, MA, UNITED STATES
Tanzi, Rudolph E., Canton, MA, UNITED STATES
PI US 2002082273 A1 20020627
AI US 2001-956980 A1 20010921 (9)
RLI Division of Ser. No. US 1998-38154, filed on 11 Mar 1998, PATENTED
DT Utility
FS APPLICATION
LREP STERNE, KESSLER, GOLDSTEIN & FOX PLLC, 1100 NEW YORK AVENUE, N.W., SUITE 600, WASHINGTON, DC, 20005-3934
CLMN Number of Claims: 57
ECL Exemplary Claim: 1
DRWN 58 Drawing Page(s)
LN.CNT 4007
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 11 OF 20 USPATFULL
AB The present invention relates to novel pancreatic related polynucleotides, the polypeptides encoded by these polynucleotides herein collectively referred to as "pancreatic antigens," and **antibodies** that immunospecifically bind these polypeptides, and the use of such pancreatic polynucleotides, antigens, and **antibodies** for detecting, treating, preventing and/or prognosing disorders of the pancreas, including, but not limited to, the presence of pancreatic cancer and pancreatic cancer metastases. More specifically, isolated pancreatic nucleic acid molecules are provided encoding novel pancreatic polypeptides. Novel pancreatic polypeptides and **antibodies** that bind to these polypeptides are provided. Also provided are vectors, host cells, and recombinant and synthetic methods for producing human pancreatic polynucleotides, polypeptides, and/or **antibodies**. The invention further relates to diagnostic and therapeutic methods useful for diagnosing, treating, preventing and/or prognosing disorders related to the pancreas, including pancreatic cancer, and therapeutic methods for treating such disorders. The invention further relates to screening methods for identifying agonists and antagonists of polynucleotides and polypeptides of the invention. The invention further relates to methods and/or compositions for inhibiting or promoting the production and/or function of the polypeptides of the invention.
AN 2002:157060 USPATFULL
TI Nucleic acids, proteins and **antibodies**
IN Rosen, Craig A., Laytonsville, MD, UNITED STATES
Ruben, Steven M., Olney, MD, UNITED STATES
PI US 2002081659 A1 20020627
AI US 2001-925297 A1 20010810 (9)
RLI Continuation-in-part of Ser. No. WO 2000-US5989, filed on 8 Mar 2000, UNKNOWN
PRAI US 1999-124270P 19990312 (60)
DT Utility
FS APPLICATION
LREP HUMAN GENOME SCIENCES INC, 9410 KEY WEST AVENUE, ROCKVILLE, MD, 20850
CLMN Number of Claims: 23
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 20326
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 12 OF 20 USPATFULL
AB The invention relates to novel wound coverings with which interfering factors of the wound healing process can be removed from the wound fluid of chronic wounds in a controlled manner and the normal healing process is promoted.
AN 2002:31981 USPATFULL
TI Wound coverings for removal of interfering factors from wound fluid
IN Meyer-Ingold, Wolfgang, Hamburg, GERMANY, FEDERAL REPUBLIC OF
Eichner, Wolfram, Butzbach, GERMANY, FEDERAL REPUBLIC OF
Ettner, Norbert, Neu Wulmstorf, GERMANY, FEDERAL REPUBLIC OF
Schink, Michael, Hamburg, GERMANY, FEDERAL REPUBLIC OF
PI US 2002018802 A1 20020214
AI US 2001-932926 A1 20010821 (9)
RLI Continuation of Ser. No. US 2000-675253, filed on 29 Sep 2000, ABANDONED
Division of Ser. No. US 1999-276687, filed on 26 Mar 1999, GRANTED, Pat. No. US 6156334
PRAI DE 1998-198 19980327
DT Utility
FS APPLICATION
LREP NIXON & VANDERHYE P.C., 1100 North Glebe Road, 8th Floor, Arlington, VA, 22201-4714
CLMN Number of Claims: 28
ECL Exemplary Claim: 1

DRWN 4 Drawing Page(s)
LN.CNT 1277

L10 ANSWER 13 OF 20 USPATFULL
AB The invention relates to the identification of pharmacological agents to be used in the treatment of Alzheimer's disease and related pathological conditions and compositions for treatment of conditions caused by amyloidosis, A.beta.-mediated formation of ROS, or both, such as Alzheimer's disease.
AN 2001:215066 USPATFULL
TI Agents for use in the treatment of Alzheimer's disease
IN Bush, Ashley I., Somerville, MA, United States
Huang, Xudong, Cambridge, MA, United States
Atwood, Craig S., Somerville, MA, United States
Tanzi, Rudolph E., Canton, MA, United States
PA The General Hospital Corporation, Boston, MA, United States (U.S. corporation)
PI US 6323218 B1 20011127
AI US 1998-38154 19980311 (9)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Weddington, Kevin E.
LREP Sterne, Kessler, Goldstein & Fox P.L.L.C.
CLMN Number of Claims: 36
ECL Exemplary Claim: 1
DRWN 60 Drawing Figure(s); 58 Drawing Page(s)
LN.CNT 4192
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 14 OF 20 USPATFULL
AB A method of altering an expression of a gene product in cells or an organism, comprising orally administering glutathione in an effective amount and under such conditions to alter a redox potential in the cells. The gene expression may be sensitive to redox potential through one or more of a process of induction, transcription, translation, post-translational modification, release, and/or through a receptor mediated process. The glutathione is preferably administered as an oral bolus of encapsulated pharmaceutically stabilized glutathione in a rapidly dissolving formulation to a mammal on an empty stomach.
AN 2001:40462 USPATFULL
TI Pharmaceutical preparations of glutathione and methods of administration thereof
IN Demopoulos, Harry B., Scarsdale, NY, United States
Seligman, Myron L., Fairfield, CT, United States
PA Antioxidant Pharmaceuticals Corp., Elmsford, NY, United States (U.S. corporation)
PI US 6204248 B1 20010320
AI US 1999-457642 19991209 (9)
RLI Continuation of Ser. No. US 331947 Continuation of Ser. No. US 1997-2100, filed on 31 Dec 1997, now abandoned
PRAI US 1996-34101P 19961231 (60)
DT Utility
FS Granted
EXNAM Primary Examiner: Reamer, James H.
LREP Milde, Hoffberg & Macklin, LLP
CLMN Number of Claims: 14
ECL Exemplary Claim: 1
DRWN 2 Drawing Figure(s); 2 Drawing Page(s)
LN.CNT 5144
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 15 OF 20 USPATFULL
AB The invention relates to novel wound coverings with which interfering factors of the wound healing process can be removed from the wound fluid

of chronic wounds in a controlled manner and the normal healing process is promoted.

AN 2000:164094 USPATFULL
TI Wound coverings for removal of interfering factors from wound fluid
IN Meyer-Ingold, Wolfgang, Hamburg, Germany, Federal Republic of
Eichner, Wolfram, Butzbach, Germany, Federal Republic of
Ettner, Norbert, Neu Wulmstorf, Germany, Federal Republic of
Schink, Michael, Hamburg, Germany, Federal Republic of
PA Beiersdorf, AG, Hamburg, Germany, Federal Republic of (non-U.S. corporation)
PI US 6156334 20001205
AI US 1999-276687 19990326 (9)
PRAI DE 1998-19813663 19980327
DT Utility
FS Granted
EXNAM Primary Examiner: Page, Thurman K.; Assistant Examiner: Ghali, Isio
LREP Nixon & Vanderhye PC
CLMN Number of Claims: 7
ECL Exemplary Claim: 1,4,6,7
DRWN 4 Drawing Figure(s); 4 Drawing Page(s)
LN.CNT 1179

L10 ANSWER 16 OF 20 USPATFULL
AB The present invention relates, in general, to a method of modulating physiological and pathological processes and, in particular, to a method of modulating intra- and extracellular levels of oxidants and thereby processes in which such oxidants are a participant. The invention also relates to compounds and compositions suitable for use in such methods.

AN 2000:131828 USPATFULL
TI Oxidant scavengers
IN Crapo, James D., Durham, NC, United States
Fridovich, Irwin, Durham, NC, United States
Oury, Tim, Durham, NC, United States
Day, Brian J., Durham, NC, United States
Folz, Rodney J., Durham, NC, United States
Freeman, Bruce A., Birmingham, AL, United States
Trova, Michael P., Schenectady, NY, United States
Batinic-Haberle, Ines, Durham, NC, United States
PA Duke University, Durham, NC, United States (U.S. corporation)
PI US 6127356 20001003
AI US 1996-663028 19960607 (8)
RLI Continuation-in-part of Ser. No. US 1996-613418, filed on 11 Mar 1996, now abandoned which is a continuation-in-part of Ser. No. US 1995-476866, filed on 7 Jun 1995 which is a continuation-in-part of Ser. No. US 1994-322766, filed on 13 Oct 1994 which is a continuation-in-part of Ser. No. US 1993-136207, filed on 15 Oct 1993, now abandoned
DT Utility
FS Granted
EXNAM Primary Examiner: Wax, Robert A.; Assistant Examiner: Saidha, Tekchand
LREP Nixon & Vanderhye P.C.
CLMN Number of Claims: 53
ECL Exemplary Claim: 1
DRWN 61 Drawing Figure(s); 50 Drawing Page(s)
LN.CNT 3728
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 17 OF 20 USPATFULL
AB Human gene GC6 is expressed more abundantly in senescent cells than young cells. Isolated, purified, and recombinant nucleic acids and proteins corresponding to the human GC6 gene and its mRNA and protein products, as well as peptides and **antibodies** corresponding to the GC6 protein can be used to identify senescent cells, distinguish between senescent and young cells, identify agents that alter senescent gene expression generally and GC6 expression specifically; such agents

as well as GC6 gene and gene products and products corresponding thereto can be used to prevent and treat diseases and conditions relating to cell senescence.
AN 2000:18280 USPATFULL
TI Nucleic acid sequence of senescence asssociated gene
IN Funk, Walter, Hayward, CA, United States
PA Geron Corporation, Menlo Park, CA, United States (U.S. corporation)
PI US 6025194 20000215
AI US 1997-974180 19971119 (8)
DT Utility
FS Granted
EXNAM Primary Examiner: Huff, Sheela; Assistant Examiner: Bansal, Geetha P.
LREP Earp, David J., Kaster, Kevin
CLMN Number of Claims: 10
ECL Exemplary Claim: 1,6
DRWN No Drawings
LN.CNT 4667
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 18 OF 20 USPATFULL
AB The present invention relates, in general, to a method of modulating physiological and pathological processes and, in particular, to a method of modulating intra- and extracellular levels of oxidants and thereby processes in which such oxidants are a participant. The invention also relates to compounds and compositions suitable for use in such methods.
AN 1999:155722 USPATFULL
TI Oxidant scavengers
IN Crapo, James D., Durham, NC, United States
Fridovich, Irwin, Durham, NC, United States
Oury, Tim, Durham, NC, United States
Day, Brian J., Durham, NC, United States
Folz, Rodney J., Durham, NC, United States
Freeman, Bruce A., Birmingham, AL, United States
PA University of Alabama at Birmingham Research Foundation, Birmingham, AL, United States (U.S. corporation)
Duke University, Durham, NC, United States (U.S. corporation)
PI US 5994339 19991130
AI US 1995-476866 19950607 (8)
RLI Continuation-in-part of Ser. No. US 1994-322766, filed on 13 Oct 1994, now abandoned which is a continuation-in-part of Ser. No. US 1993-136207, filed on 15 Oct 1993, now abandoned
DT Utility
FS Granted
EXNAM Primary Examiner: Wax, Robert A.; Assistant Examiner: Saidha, Tekchand
LREP Nixon & Vanderhye
CLMN Number of Claims: 14
ECL Exemplary Claim: 1
DRWN 53 Drawing Figure(s); 38 Drawing Page(s)
LN.CNT 2910
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 19 OF 20 USPATFULL
AB The present invention provides a method for treating oxygen free radical induced tissue damage associated with ischemia reperfusion injury, wherein nitric oxide is delivered to target cells/tissues through the administration of a nitric oxide-containing compound that spontaneously releases nitric oxide under physiological conditions without requiring the presence of oxygen.
AN 1998:92068 USPATFULL
TI Nitric oxide releasing compounds as protective agents in ischemia reperfusion injury
IN Wink, Jr., David A., Hagerstown, MD, United States
Mitchell, James B., Damascus, MD, United States
Russo, Angelo, Bethesda, MD, United States

Krishna, Murali C., Derwood, MD, United States
Hanbauer, Ingeborg, Chevy Chase, MD, United States
Grisham, Matthew B., Shreveport, LA, United States
Granger, Daniel Neil, Shreveport, LA, United States

PA The United States of America as represented by the Department of Health and Human Services, Washington, DC, United States (U.S. government)
The Board of Supervisors of Louisiana State University and Agricultural and Mechanical College, Baton Rouge, LA, United States (U.S. corporation)

PI US 5789447 19980804
AI US 1995-527314 19950912 (8)
RLI Continuation of Ser. No. US 1993-146610, filed on 2 Nov 1993, now abandoned
DT Utility
FS Granted
EXNAM Primary Examiner: Burn, Brian M.
LREP Leydig, Voit & Mayer, Ltd.
CLMN Number of Claims: 6
ECL Exemplary Claim: 1
DRWN 18 Drawing Figure(s); 16 Drawing Page(s)
LN.CNT 1563
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 20 OF 20 USPATFULL

AB The subject invention provides a method for recovering a solution containing purified, enzymatically active Cu-Zn **superoxide dismutase** or a polypeptide analog thereof having substantially the same amino acid sequence as, and the bioloical activity of, naturally-occurring Cu-Zn **superoxide dismutase** from a composition which comprises cells containing Cu-Zn **superoxide dismutase** or a polypeptide analog thereof. The invention also provides a method of increasing the yield of recovered solutions having an increased concentration of b isoform of an enzymatically-active polypeptide analog of Cu-Zn **superoxide dismutase** from a composition which comprises cells containing a, b and c isoforms of the polypeptide analog.

AN 94:95343 USPATFULL
TI Method for purification of recombinant **copper/zinc** (CU-ZN) **superoxide dismutase** from bacteria or eucaryotic cells
IN Bartfeld, Daniel, North York, Canada
Lieshitz, Ruth, Rehovot, Israel
Hadary, Dany, Richmond Hill, Canada
PA Bio-Technology General Corp., New York, NY, United States (U.S. corporation)
PI US 5360729 19941101
AI US 1993-29030 19930310 (8)
RLI Continuation of Ser. No. US 1992-840571, filed on 24 Feb 1992, now abandoned which is a continuation of Ser. No. US 1989-432871, filed on 7 Nov 1989, now abandoned
DT Utility
FS Granted
EXNAM Primary Examiner: Patterson, Jr., Charles L.
LREP White, John P.
CLMN Number of Claims: 17
ECL Exemplary Claim: 1
DRWN 19 Drawing Figure(s); 19 Drawing Page(s)
LN.CNT 1676
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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 FILE 'BIOSIS, CABA, CAPLUS, EMBASE, LIFESCI, MEDLINE, SCISEARCH,
     USPATFULL, JAPIO' ENTERED AT 18:14:55 ON 03 JUN 2003
L1             1 S SALMONELLA AND (SUPEROXIDE DIMUTASE)
L2             0 S L1 AND DIMERIC
L3             0 S L1 AND MONOMERIC
L4           361 S (SUPEROXIDE DIMUTASE)
L5            38 S L4 AND BACTERIA
L6            37 DUP REM L5 (1 DUPLICATE REMOVED)
L7             1 S L6 AND DIMERIC
L8            45 S L4 AND COPPER AND ZINC
L9            44 DUP REM L8 (1 DUPLICATE REMOVED)
L10            7 S L9 AND BACTERIA

     FILE 'STNGUIDE' ENTERED AT 18:20:09 ON 03 JUN 2003
L11            0 S L4 AND ANTIBOD?
L12            0 S L4 AND ANTIBODY
L13            0 S L4 AND PASSIVE IMMUNIZATION
L14            0 S HAEMOPHILIS

     FILE 'BIOSIS, CABA, CAPLUS, EMBASE, LIFESCI, MEDLINE, SCISEARCH,
     USPATFULL, JAPIO' ENTERED AT 18:23:28 ON 03 JUN 2003
L15           43 S L4 AND ANTIBOD?
L16           13 S L15 AND BACTERIA
L17            6 S L15 AND DIMERIC

     FILE 'STNGUIDE' ENTERED AT 18:25:17 ON 03 JUN 2003
L18            0 S ACTINOBACILLUS AND SUPEROXIDE DISMUTASE

     FILE 'BIOSIS, CABA, CAPLUS, EMBASE, LIFESCI, MEDLINE, SCISEARCH,
     USPATFULL, JAPIO' ENTERED AT 18:27:59 ON 03 JUN 2003
L19           31 S  ACTINOBACILLUS AND SUPEROXIDE DISMUTASES
L20            2 S L19 AND ANTIBODIES
L21         2289 S SALMONELLA AND SUPEROXIDE
L22          177 S L21 AND COPPER AND ZINC
L23           84 S L22 AND ANTIBODIES
L24           34 S L23 AND DIMERIC
L25           34 DUP REM L24 (0 DUPLICATES REMOVED)

     FILE 'AGRICOLA, LIFESCI, CONFSCI, BIOSIS, VETU, VETB, PHIN, PHIC' ENTERED
     AT 18:36:48 ON 03 JUN 2003
L26        38711 S SUPEROXIDE DISMUTASE
L27         1975 S L26 AND BACTERIA
L28           34 S L27 AND VACCINE
L29            0 S L28 AND DIMERIC
L30          169 S DIMERIC AND L26
L31           29 S L30 AND BACTERIA
L32           18 S L31 AND ZINC
L33        29250 S HAEMOPHILUS
L34           55 S L33 AND SUPEROXIDE DISMUTASE
L35           38 DUP REM L34 (17 DUPLICATES REMOVED)
L36           16 S L35 AND COPPER AND ZINC
L37        22226 S NEISSERIA
L38           32 S L37 AND L26
L39           17 DUP REM L32 (1 DUPLICATE REMOVED)
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ANSWER 19 OF 26 SCISEARCH COPYRIGHT 2003 THOMSON ISI

AB Haemophilus ducreyi causes chancroid, a sexually transmitted genital ulcer disease implicated in increased heterosexual transmission of HIV. As part of an effort to identify H. ducreyi gene products involved in virulence and pathogenesis, we created random TnphoA insertion mutations in an H. ducreyi 35 000 library cloned in Escherichia coil. Inserts encoding exported or secreted PhoA fusion proteins were characterized by DNA sequencing. One such clone encoded a Cu-Zn **superoxide dismutase** (**SOD**) enzyme. The Cu-Zn **SOD** was periplasmic in H. ducreyi and accounted for most of the detectable **SOD** activity in whole-cell lysates of H. ducreyi grown in Vitro. To investigate the function of the Cu-Zn **SOD**, we created a Cu-Zn **SOD**-deficient H. ducreyi strain by inserting a cat cassette into the sodC gene. The wild-type and Cu-Zn **SOD** null mutant strains were equally resistant to excess cytoplasmic superoxide induced by paraquat, demonstrating that the Cu-Zn **SOD** did not function in the detoxification of cytoplasmic superoxide. However, the Cu-Zn **SOD** null strain was significantly more susceptible to killing by extracellular superoxide than the wild type. This result suggests that the H. ducreyi Cu-Zn **SOD** may play a role in bacterial defence against oxidative killing by host immune cells during infection.

AN 1998:100798 SCISEARCH

GA The Genuine Article (R) Number: YT605

TI Periplasmic copper-zinc **superoxide dismutase** protects Haemophilus ducreyi from exogenous superoxide

AU SanMateo L R; Hobbs M M; Kawula T H (Reprint)

CS UNIV N CAROLINA, SCH MED, DEPT MICROBIOL & IMMUNOL, CHAPEL HILL, NC 27599 (Reprint); UNIV N CAROLINA, SCH MED, DEPT MICROBIOL & IMMUNOL, CHAPEL HILL, NC 27599

CYA USA

SO MOLECULAR MICROBIOLOGY, (JAN 1998) Vol. 27, No. 2, pp. 391-404. Publisher: BLACKWELL SCIENCE LTD, P O BOX 88, OSNEY MEAD, OXFORD, OXON, ENGLAND OX2 0NE. ISSN: 0950-382X.

DT Article; Journal

FS LIFE

LA English

L16 ANSWER 1 OF 26 USPATFULL
AB This invention relates to novel human polynucleotides and variants thereof, their encoded polypeptides and variants thereof, to genes corresponding to these polynucleotides and to proteins expressed by the genes. The invention also relates to diagnostic and therapeutic agents employing such novel human polynucleotides, their corresponding genes or gene products, e.g., these genes and proteins, including probes, antisense constructs, and antibodies.
AN 2003:64662 USPATFULL
TI Human genes and gene expression products
IN Williams, Lewis T., Mill Valley, CA, UNITED STATES
Escobedo, Jaime, Alamo, CA, UNITED STATES
Innis, Michael A., UNITED STATES
Garcia, Pablo Dominguez, San Francisco, CA, UNITED STATES
Sudduth-Klinger, Julie, Kensington, CA, UNITED STATES
Reinhard, Christoph, Alameda, CA, UNITED STATES
Randazzo, Filippo, Oakland, CA, UNITED STATES
Kennedy, Giulia C., San Francisco, CA, UNITED STATES
Pot, David, Arlington, VA, UNITED STATES
Kassam, Altaf, Oakland, CA, UNITED STATES
Lamson, George, Moraga, CA, UNITED STATES
Drmanac, Radjoe, Palo Alto, CA, UNITED STATES
Dickson, Mark, Hollister, CA, UNITED STATES
Labat, Ivan, Mountain View, CA, UNITED STATES
Jones, Lee William, Sunnyvale, CA, UNITED STATES
Stache-Crain, Birgit, Sunnyvale, CA, UNITED STATES
PI US 2003044783 A1 20030306
AI US 2001-803719 A1 20010309 (9)
PRAI US 2000-188609P 20000309 (60)
DT Utility
FS APPLICATION
LREP Chiron Corporation Intellectual Property -R440, PO Box 8097, Emeryville, CA, 94662-8097
CLMN Number of Claims: 15
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 23459
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 2 OF 26 USPATFULL
AB The entire genome of pathogenic E. coli strain 0157:H7 has been sequenced. All of the genomic DNA sequences present in 0157 and absent in the previously sequenced laboratory strain K12 are presented here.
AN 2003:31124 USPATFULL
TI Novel sequences of E. coli O157
IN Blattner, Frederick R., Madison, WI, UNITED STATES
Burland, Valerie D., Cross Plains, WI, UNITED STATES
Perna, Nicole T., Madison, WI, UNITED STATES
Plunkett, Guy, III, Madison, WI, UNITED STATES
Welch, Rod, Madison, WI, UNITED STATES
PI US 2003023075 A1 20030130
AI US 2002-114170 A1 20020401 (10)
RLI Continuation of Ser. No. US 1999-453702, filed on 3 Dec 1999, GRANTED, Pat. No. US 6365723
PRAI US 1998-110955P 19981204 (60)
DT Utility
FS APPLICATION
LREP QUARLES & BRADY LLP, FIRSTAR PLAZA, ONE SOUTH PINCKNEY STREET, P.O. BOX 2113 SUITE 600, MADISON, WI, 53701-2113
CLMN Number of Claims: 18
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 2155
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 3 OF 26 USPATFULL

AB The invention provides isolated polypeptide and nucleic acid sequences derived from Acinetobacter mirabilis that are useful in diagnosis and therapy of pathological conditions; antibodies against the polypeptides; and methods for the production of the polypeptides. The invention also provides methods for the detection, prevention and treatment of pathological conditions resulting from bacterial infection.

AN 2003:130010 USPATFULL

TI Nucleic acid and amino acid sequences relating to Acinetobacter baumannii for diagnostics and therapeutics

IN Breton, Gary, Marlborough, MA, United States
Bush, David, Somerville, MA, United States

PA Genome Therapeutics Corporation, Waltham, MA, United States (U.S. corporation)

PI US 6562958 B1 20030513

AI US 1999-328352 19990604 (9)

PRAI US 1998-88701P 19980609 (60)

DT Utility

FS GRANTED

EXNAM Primary Examiner: Borin, Michael

LREP Genome Therapeutics Corporation

CLMN Number of Claims: 15

ECL Exemplary Claim: 1

DRWN 0 Drawing Figure(s); 0 Drawing Page(s)

LN.CNT 16618

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 4 OF 26 USPATFULL

AB The present invention provides the sequencing of the entire genome of Haemophilus influenzae Rd, SEQ ID NO:1. The present invention further provides the sequence information stored on computer readable media, and computer-based systems and methods which facilitate its use. In addition to the entire genomic sequence, the present invention identifies over 1700 protein encoding fragments of the genome and identifies, by position relative to a unique Not I restriction endonuclease site, any regulatory elements which modulate the expression of the protein encoding fragments of the Haemophilus genome.

AN 2003:60089 USPATFULL

TI Nucleotide sequence of the Haemophilus influenzae Rd genome, fragments thereof, and uses thereof

IN Fleischmann, Robert D., Gaithersburg, MD, United States
Adams, Mark D., N. Potomac, MD, United States
White, Owen, Gaithersburg, MD, United States
Smith, Hamilton O., Towson, MD, United States
Venter, J. Craig, Potomac, MD, United States

PA Human Genome Sciences, Inc., Rockville, MD, United States (U.S. corporation)
Johns Hopkins University, Baltimore, MD, United States (U.S. corporation)

PI US 6528289 B1 20030304

AI US 2000-643990 20000823 (9)

RLI Continuation of Ser. No. US 1995-487429, filed on 7 Jun 1995
Continuation-in-part of Ser. No. US 1995-426787, filed on 21 Apr 1995, now abandoned

DT Utility

FS GRANTED

EXNAM Primary Examiner: Martinell, James

LREP Human Genome Sciences, Inc.

CLMN Number of Claims: 23

ECL Exemplary Claim: 1

DRWN 47 Drawing Figure(s); 47 Drawing Page(s)

LN.CNT 4428

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 5 OF 26 USPATFULL
AB The present invention provides the sequencing of the entire genome of Haemophilus influenzae Rd, SEQ ID NO:1. The present invention further provides the sequence information stored on computer readable media, and computer-based systems and methods which facilitate its use. In addition to the entire genomic sequence, the present invention identifies over 1700 protein encoding fragments of the genome and identifies, by position relative to a unique Not I restriction endonuclease site, any regulatory elements which modulate the expression of the protein encoding fragments of the Haemophilus genome.
AN 2003:13200 USPATFULL
TI Nucleotide sequence of the Haemophilus influenzae Rd genome, fragments thereof, and uses thereof
IN Fleischmann, Robert D., Gaithersburg, MD, United States
Adams, Mark D., N. Potomac, MD, United States
White, Owen, Gaithersburg, MD, United States
Smith, Hamilton O., Towson, MD, United States
Venter, J. Craig, Potomac, MD, United States
PA Human Genome Science, Inc., Rockville, MD, United States (U.S. corporation)
Johns Hopkins University, Baltimore, MD, United States (U.S. corporation)
PI US 6506581 B1 20030114
AI US 2000-557884 20000425 (9)
RLI Continuation of Ser. No. US 1995-476102, filed on 7 Jun 1995
Continuation-in-part of Ser. No. US 1995-426787, filed on 21 Apr 1995, now abandoned
DT Utility
FS GRANTED
EXNAM Primary Examiner: Brusca, John S.
LREP Human Genome Sciences, Inc.
CLMN Number of Claims: 51
ECL Exemplary Claim: 1
DRWN 47 Drawing Figure(s); 47 Drawing Page(s)
LN.CNT 4510
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 6 OF 26 CAPLUS COPYRIGHT 2003 ACS
AB Whole-cell vaccines and methods for their use in producing protective immune responses in vertebrate hosts subsequently exposed to pathogenic bacteria. The present invention involves a method of enhancing antigen presentation by intracellular bacteria in a manner that improves vaccine efficacy. After identifying an enzyme that has an anti-apoptotic effect upon host cells infected by an intracellular microbe, the activity of the enzyme is reduced, thereby modifying the microbe so that it increases immunogenicity. Also, the present invention provides a method of incrementally modifying enzyme activity to produce incrementally attenuated mutants of the microbe from which an effective vaccine candidate can be selected.
AN 2002:615357 CAPLUS
DN 137:184446
TI Attenuated bacteria having reduced anti-apoptotic enzyme activity to enhance immunogenicity and for use as vaccines against infectious diseases
IN Kernodle, Douglas S.; Bochan, Markian R.
PA Vanderbilt University, USA; The United States Government as Represented by the Department of Veteran's Affairs
SO PCT Int. Appl., 164 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

PI WO 2002062298 A2 20020815 WO 2002-US3451 20020207
WO 2002062298 A3 20030220
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
PRAI US 2001-267328P P 20010207
US 2001-322989P P 20010918

L16 ANSWER 7 OF 26 USPATFULL
AB Disclosed are methods for the isolation of primordial germ cells, culturing these cells to produce primordial germ cell-derived cell lines, methods for transforming both the primordial germ cells and the cultured cell lines, and using these transformed cells and cell lines to generate transgenic animals. The efficiency at which transgenic animals are generated by the present invention is greatly increased, thereby allowing the use of homologous recombination in producing transgenic non-rodent animal species.
AN 2002:75643 USPATFULL
TI Methods comprising apoptosis inhibitors for the generation of transgenic pigs
IN Piedrahita, Jorge A., College Station, TX, United States
Bazer, Fuller W., College Station, TX, United States
PA Texas A&M University System, College Station, TX, United States (U.S. corporation)
PI US 6369294 B1 20020409
US 2002045253 A1 20020418
AI US 2001-819964 20010328 (9)
RLI Continuation of Ser. No. US 1997-949155, filed on 10 Oct 1997, now patented, Pat. No. US 6271436
PRAI US 1997-46094P 19970509 (60)
US 1996-27338P 19961011 (60)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Crouch, Deborah; Assistant Examiner: Pappu, Sita
LREP Bracewell & Patterson L.L.P.
CLMN Number of Claims: 58
ECL Exemplary Claim: 1
DRWN 2 Drawing Figure(s); 2 Drawing Page(s)
LN.CNT 9398

L16 ANSWER 8 OF 26 USPATFULL
AB The entire genome of pathogenic E. coli strain O157:H7 has been sequenced. All of the genomic DNA sequences present in O157 and absent in the previously sequenced laboratory strain K12 are presented here.
AN 2002:70106 USPATFULL
TI Sequences of E. coli O157
IN Blattner, Frederick R., Madison, WI, United States
Burland, Valerie, Cross Plains, WI, United States
Perna, Nicole T., Madison, WI, United States
Plunkett, Guy, Madison, WI, United States
Welch, Rod, Madison, WI, United States
PA Wisconsin Alumni Research Foundation, Madison, WI, United States (U.S. corporation)
PI US 6365723 B1 20020402
AI US 1999-453702 19991203 (9)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Fredman, Jeffrey

LREP Quarles & Brady LLP
CLMN Number of Claims: 2
ECL Exemplary Claim: 1
DRWN 0 Drawing Figure(s); 0 Drawing Page(s)
LN.CNT 1583
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 9 OF 26 USPATFULL
AB The present invention provides the sequencing of the entire genome of Haemophilus influenzae Rd, SEQ ID NO: 1. The present invention further provides the sequence information stored on computer readable media, and computer-based systems and methods which facilitate its use. In addition to the entire genomic sequence, the present invention identifies over 1700 protein encoding fragments of the genome and identifies, by position relative to a unique Not I restriction endonuclease site, any regulatory elements which modulate the expression of the protein encoding fragments of the Haemophilus genome.
AN 2002:50802 USPATFULL
TI Computer readable genomic sequence of Haemophilus influenzae Rd, fragments thereof, and uses thereof
IN Fleischmann, Robert D., Gaithersburg, MD, United States
Adams, Mark D., N. Potomac, MD, United States
White, Owen, Gaithersburg, MD, United States
Smith, Hamilton O., Towson, MD, United States
Venter, J. Craig, Potomac, MD, United States
PA Human Genome Sciences, Inc., Rockville, MD, United States (U.S. corporation)
PI US 6355450 B1 20020312
AI US 1995-476102 19950607 (8)
RLI Continuation-in-part of Ser. No. US 1995-426787, filed on 21 Apr 1995, now abandoned
DT Utility
FS GRANTED
EXNAM Primary Examiner: Campell, Bruce R.
CLMN Number of Claims: 88
ECL Exemplary Claim: 1
DRWN 47 Drawing Figure(s); 47 Drawing Page(s)
LN.CNT 4666
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 10 OF 26 SCISEARCH COPYRIGHT 2003 THOMSON ISI
AB **Actinobacillus pleuropneumoniae** is the causative agent of porcine pleuropneumonia, a disease characterized by pulmonary necrosis and hemorrhage caused in part by neutrophil degranulation. In an effort to understand the pathogenesis of this disease, we have developed an in vivo expression technology (IVET) system to identify genes that are specifically up-regulated during infection. One of the genes that we have identified as being induced in vivo is ohr, encoding organic hydroperoxide reductase, an enzyme that could play a role in detoxification of organic hydroperoxides generated during infection. Among the 12 serotypes of A. pleuropneumoniae, ohr was found in only serotypes 1, 9, and 11. This distribution correlated with increased resistance to cumene hydroperoxide, an organic hydroperoxide, but not to hydrogen peroxide or to paraquat, a superoxide generator. Functional assays of Ohr activity demonstrated that A. pleuropneumoniae serotype I cultures, but not serotype 5 cultures, were able to degrade cumene hydroperoxide. In A. pleuropneumoniae serotype 1, expression of ohr was induced by cumene hydroperoxide, but not by either hydrogen peroxide or paraquat. In contrast, an ohr gene from serotype I cloned into A. pleuropneumoniae serotype 5 was not induced by cumene hydroperoxide or by other forms of oxidative stress, suggesting the presence of a serotype-specific positive regulator of ohr in A. pleuropneumoniae serotype 1.
AN 2002:109855 SCISEARCH
GA The Genuine Article (R) Number: 516LY

TI ohr, encoding an organic hydroperoxide reductase, is an in vivo-induced gene in **Actinobacillus pleuropneumoniae**
AU Shea R J; Mulks M H (Reprint)
CS Michigan State Univ, Dept Microbiol & Mol Genet, 401 Giltner Hall, E Lansing, MI 48824 USA (Reprint); Michigan State Univ, Dept Microbiol & Mol Genet, E Lansing, MI 48824 USA
CYA USA
SO INFECTION AND IMMUNITY, (FEB 2002) Vol. 70, No. 2, pp. 794-802.
Publisher: AMER SOC MICROBIOLOGY, 1752 N ST NW, WASHINGTON, DC 20036-2904 USA.
ISSN: 0019-9567.
DT Article; Journal
LA English
REC Reference Count: 46
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

L16 ANSWER 11 OF 26 SCISEARCH COPYRIGHT 2003 THOMSON ISI
AN 2002:328202 SCISEARCH
GA The Genuine Article (R) Number: BU05Z
TI Bacterial **superoxide dismutase** and virulence
AU Langford P R (Reprint); Sansone A; Valenti P; Battistoni A; Kroll J S
CS Univ London Imperial Coll Sci & Technol, Dept Paediat, Mol Infect Dis Grp, St Marys Hosp Campus, London W2 1PG, England (Reprint); European Bioinformat Inst, EMBL Outstn, Cambridge CB10 1SD, England; Univ Naples, Inst Microbiol 2, I-80138 Naples, Italy; Univ Roma Tor Vergata, Dept Biol, I-00133 Rome, Italy; Univ London Imperial Coll Sci & Technol, Dept Paediat, Mol Infect Dis Grp, London W2 1PG, England
CYA England; Italy
SO SUPEROXIDE DISMUTASE, (APR 2002) Vol. 349, pp. 155-166.
Publisher: ACADEMIC PRESS INC, 525 B STREET, SUITE 1900, SAN DIEGO, CA 92101-4495 USA.
ISSN: 0076-6879.
DT General Review; Journal
LA English
REC Reference Count: 39

L16 ANSWER 12 OF 26 USPATFULL
AB Disclosed are methods for the isolation of primordial germ cells, culturing these cells to produce primordial germ cell-derived cell lines, methods for transforming both the primordial germ cells and the cultured cell lines, and using these transformed cells and cell lines to generate transgenic animals. The efficiency at which transgenic animals are generated by the present invention is greatly increased, thereby allowing the use of homologous recombination in producing transgenic non-rodent animal species.
AN 2001:126193 USPATFULL
TI Cells and methods for the generation of transgenic pigs
IN Piedrahita, Jorge A., College Station, TX, United States
Bazer, Fuller W., College Station, TX, United States
PA The Texas A & M University System, College Station, TX, United States (U.S. corporation)
PI US 6271436 B1 20010807
AI US 1997-949155 19971010 (8)
PRAI US 1996-27338P 19961011 (60)
US 1997-46094P 19970509 (60)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Martin, Jill D.
LREP Williams, Morgan & Amerson
CLMN Number of Claims: 69
ECL Exemplary Claim: 55
DRWN 2 Drawing Figure(s); 2 Drawing Page(s)
LN.CNT 8905

L16 ANSWER 13 OF 26 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.DUPLICATE 1

AB A direct and rapid SDS-PAGE staining method for in situ identification of activity and molecular weight of **superoxide dismutase** following denaturing treatment has been developed. This technique was based on the removal of SDS after SDS-PAGE and two-step staining procedures of the SDS-polyacrylamide gel to present the achromatic activity-zones of the enzymes. We demonstrated that the detection sensitivity of SDS-PAGE staining method was the same as the traditional xanthine oxidase-NBT solution assay. Through the SDS-PAGE staining method, three classes of **superoxide dismutases** with distinct molecular sizes were identified in situ. Moreover, activity of copper and zinc containing **superoxide dismutase** in crude extracts of Escherichia coli and **Actinobacillus pleuropneumoniae** was significantly enhanced using the two-step staining procedure.

AN 2001:209305 BIOSIS

DN PREV200100209305

TI A simple technique for the simultaneous determination of molecular weight and activity of **superoxide dismutase** using SDS-PAGE.

AU Chen, Jia-Rong; Liao, Chao-Wei; Mao, Simon J. T.; Chen, Ter-Hsin; Weng, Chung-Nan (1)

CS (1) Department of Pathobiology, Pig Research Institute Taiwan, Chunan, Miaoli, 35099: cnw01@vax1.prit.org.tw Taiwan

SO Journal of Biochemical and Biophysical Methods, (26 February, 2001) Vol. 47, No. 3, pp. 233-237. print.
ISSN: 0165-022X.

DT Article

LA English

SL English

L16 ANSWER 14 OF 26 CAPLUS COPYRIGHT 2003 ACS

AB The present invention relates to pharmaceutical compns. comprising Cu,Zn-**superoxide dismutase** (Cu,Zn-**SOD**) of the dimeric type, nucleic acid encoding a Cu,Zn-**SOD**, or antibody to a Cu,Zn-**SOD** for treating and/or vaccinating against bacterial infection. Also described are methods for isolation of Cu,Zn-**SODs** and for prepn. of pharmaceutical compns., preferably for providing or eliciting protective immunity to meningococcal infection in an animal.

AN 2000:161457 CAPLUS

DN 132:206934

TI Cu,Zn-**Superoxide dismutase** or antibody thereto as vaccine against bacterial (including meningococcal) infection

IN Gorringe, Andrew Richard; Kroll, John Simon; Langford, Paul Richard; Robinson, Andrew

PA Microbiological Research Authority, UK; Imperial College of Science, Technology and Medicine

SO PCT Int. Appl., 27 pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2000012718	A1	20000309	WO 1999-GB2828	19990827
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2341639	AA	20000309	CA 1999-2341639	19990827

AU 9956350 A1 20000321 AU 1999-56350 19990827
EP 1108038 A1 20010620 EP 1999-943065 19990827
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO
JP 2002523521 T2 20020730 JP 2000-567704 19990827
PRAI GB 1998-18756 A 19980827
WO 1999-GB2828 W 19990827
RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 15 OF 26 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.DUPLICATE 2
AB **Actinobacillus pleuropneumoniae**, the causative agent of porcine pleuropneumonia, contains a periplasmic Cu- and Zn-cofactored **superoxide dismutase** ((Cu,Zn)-**SOD**, or SodC) which has the potential, realized in other pathogens, to promote bacterial survival during infection by dismutating host-defense-derived superoxide. Here we describe the construction of a site-specific, (Cu,Zn)-**SOD** -deficient A. pleuropneumoniae serotype 1 mutant and show that although the mutant is highly sensitive to the microbicidal action of superoxide in vitro, it remains fully virulent in experimental pulmonary infection in pigs.
AN 2000:400616 BIOSIS
DN PREV200000400616
TI (Cu,Zn)-**superoxide dismutase** mutants of the swine pathogen **Actinobacillus pleuropneumoniae** are unattenuated in infections of the natural host.
AU Sheehan, Brian J.; Langford, Paul R.; Rycroft, Andrew N.; Kroll, J. Simon (1)
CS (1) Molecular Infectious Diseases Group, Department of Paediatrics, Imperial College School of Medicine, St. Mary's Campus, London, W2 1PG UK
SO Infection and Immunity, (August, 2000) Vol. 68, No. 8, pp. 4778-4781. print.
ISSN: 0019-9567.
DT Article
LA English
SL English

L16 ANSWER 16 OF 26 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.DUPLICATE 3
AB The functional and three-dimensional structural features of Cu,Zn **superoxide dismutase** coded by the Salmonella typhimurium sodCI gene, have been characterized. Measurements of the catalytic rate indicate that this enzyme is the most efficient **superoxide dismutase** analyzed so far, a feature that may be related to the exclusive association of the sodCI gene with the most pathogenic Salmonella serotypes. The enzyme active-site copper ion is highly accessible to external probes, as indicated by quenching of the water proton relaxation rate upon addition of iodide. The shape of the electron paramagnetic resonance spectrum is dependent on the frozen or liquid state of the enzyme solution, suggesting relative flexibility of the copper ion environment. The crystal structure (R-factor 22.6%, at 2.3 ANG resolution) indicates that the dimeric enzyme adopts the quaternary assembly typical of prokaryotic Cu,Zn **superoxide dismutases**. However, when compared to the structures of the homologous enzymes from Photobacterium leiognathi and **Actinobacillus pleuropneumoniae**, the subunit interface of Salmonella Cu,Zn **superoxide dismutase** shows substitution of 11 out of 19 interface residues. As a consequence, the network of structural water molecules that fill the dimer interface cavity is structured differently from the other dimeric bacterial enzymes. The crystallographic and functional characterization of this Salmonella Cu,Zn **superoxide dismutase** indicates that structural variability and catalytic efficiency are higher in prokaryotic than in the eukaryotic homologous

enzymes.
AN 2000:490027 BIOSIS
DN PREV200000490148
TI Functional and crystallographic characterization of Salmonella typhimurium Cu,Zn **superoxide dismutase** coded by the sodCI virulence gene.
AU Pesce, Alessandra; Battistoni, Andrea; Stroppolo, Maria Elena; Polizio, Francesca; Nardini, Marco; Kroll, J. Simon; Langford, Paul R.; O'Neill, Peter; Sette, Marco; Desideri, Alessandro (1); Bolognesi, Martino
CS (1) INFM, University of Rome "Tor Vergata", Via della Ricerca Scientifica, 00133, Rome Italy
SO Journal of Molecular Biology, (15 September, 2000) Vol. 302, No. 2, pp. 465-478. print.
ISSN: 0022-2836.
DT Article
LA English
SL English

L16 ANSWER 17 OF 26 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.DUPLICATE 4
AB Macrophages and neutrophils protect animals from microbial infection in part by issuing a burst of toxic superoxide radicals when challenged. To counteract this onslaught, many Gram-negative bacterial pathogens possess periplasmic Cu,Zn **superoxide dismutases** (**SODs**), which act on superoxide to yield molecular oxygen and hydrogen peroxide. We have solved the X-ray crystal structure of the Cu,Zn **SOD** from **Actinobacillus pleuropneumoniae**, a major porcine pathogen, by molecular replacement at 1.9 ANG resolution. The structure reveals that the dimeric bacterial enzymes form a structurally homologous class defined by a water-mediated dimer interface, and share with all Cu,Zn **SODs** the Greek-key beta-barrel subunit fold with copper and zinc ions located at the base of a deep loop-enclosed active-site channel. Our structure-based sequence alignment of the bacterial enzymes explains the monomeric nature of at least two of these, and suggests that there may be at least one additional structural class for the bacterial **SODs**. Two metal-mediated crystal contacts yielded our C2221 crystals, and the geometry of these sites could be engineered into proteins recalcitrant to crystallization in their native form. This work highlights structural differences between eukaryotic and prokaryotic Cu,Zn **SODs**, as well as similarities and differences among prokaryotic **SODs**, and lays the groundwork for development of antimicrobial drugs that specifically target periplasmic Cu,Zn **SODs** of bacterial pathogens.
AN 2000:166587 BIOSIS
DN PREV200000166587
TI Cu,Zn **superoxide dismutase** structure from a microbial pathogen establishes a class with a conserved dimer interface.
AU Forest, Katrina T. (1); Langford, Paul R.; Kroll, J. Simon; Getzoff, Elizabeth D. (1)
CS (1) Department of Molecular Biology, Skaggs Institute for Chemical Biology, Scripps Research Institute, 10550 North Torrey Pines Road, La Jolla, CA, 92037 USA
SO Journal of Molecular Biology., (Feb. 11, 2000) Vol. 296, No. 1, pp. 145-153.
ISSN: 0022-2836.
DT Article
LA English
SL English

L16 ANSWER 18 OF 26 CABA COPYRIGHT 2003 CABI
AN 2000:158962 CABA
DN 20002220664
TI PCR amplification of the **sod**/C DE **Actinobacillus pleuropneumoniae** gene: application for field samples

Amplificacao por PCR do gene sodC DE **Actinobacillus pleuropneumoniae**: Aplicacaao em amostras de campo
AU Ruppenthal, R. D.; Klein, C. S.; Schrank, A.; Schrank, I. S.; Piffer, I. A.; Silva, S. C.
SO Anais do IX Congresso Brasileiro de Veterinarios Especialistas em Suinos, Belo Horizone, Brazil, 1999, (1999) pp. 153-154. 5 ref.
Publisher: Embrapa Suinos e Aves. Concordia
Meeting Info.: Anais do IX Congresso Brasileiro de Veterinarios Especialistas em Suinos, Belo Horizone, Brazil, 1999.
CY Brazil
DT Conference Article
LA Portuguese

L16 ANSWER 19 OF 26 SCISEARCH COPYRIGHT 2003 THOMSON ISI
AB Haemophilus ducreyi causes chancroid, a sexually transmitted genital ulcer disease implicated in increased heterosexual transmission of HIV. As part of an effort to identify H. ducreyi gene products involved in virulence and pathogenesis, we created random TnphoA insertion mutations in an H. ducreyi 35 000 library cloned in Escherichia coil. Inserts encoding exported or secreted PhoA fusion proteins were characterized by DNA sequencing. One such clone encoded a Cu-Zn **superoxide dismutase** (**SOD**) enzyme. The Cu-Zn **SOD** was periplasmic in H. ducreyi and accounted for most of the detectable **SOD** activity in whole-cell lysates of H. ducreyi grown in Vitro. To investigate the function of the Cu-Zn **SOD**, we created a Cu-Zn **SOD**-deficient H. ducreyi strain by inserting a cat cassette into the sodC gene. The wild-type and Cu-Zn **SOD** null mutant strains were equally resistant to excess cytoplasmic superoxide induced by paraquat, demonstrating that the Cu-Zn **SOD** did not function in the detoxification of cytoplasmic superoxide. However, the Cu-Zn **SOD** null strain was significantly more susceptible to killing by extracellular superoxide than the wild type. This result suggests that the H. ducreyi Cu-Zn **SOD** may play a role in bacterial defence against oxidative killing by host immune cells during infection.
AN 1998:100798 SCISEARCH
GA The Genuine Article (R) Number: YT605
TI Periplasmic copper-zinc **superoxide dismutase** protects Haemophilus ducreyi from exogenous superoxide
AU SanMateo L R; Hobbs M M; Kawula T H (Reprint)
CS UNIV N CAROLINA, SCH MED, DEPT MICROBIOL & IMMUNOL, CHAPEL HILL, NC 27599 (Reprint); UNIV N CAROLINA, SCH MED, DEPT MICROBIOL & IMMUNOL, CHAPEL HILL, NC 27599
CYA USA
SO MOLECULAR MICROBIOLOGY, (JAN 1998) Vol. 27, No. 2, pp. 391-404.
Publisher: BLACKWELL SCIENCE LTD, P O BOX 88, OSNEY MEAD, OXFORD, OXON, ENGLAND OX2 0NE.
ISSN: 0950-382X.
DT Article; Journal
FS LIFE
LA English
REC Reference Count: 80
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

L16 ANSWER 20 OF 26 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AB The first three-dimensional structure of a functional monomeric Cu,Zn **superoxide dismutase** (from Escherichia coli, E-**SOD**) is reported at 2.0 ANG resolution (R-factor = 16.8%). Compared to the homologous eukaryotic enzymes, E-**SOD** displays a perturbed antiparallel beta-barrel structure. The most striking structural features observed include extended amino acid insertions in the surface 1,2-loop and S-S subloop, modification of the disulfide bridge connection, and loss of functional electrostatic residues, suggesting a modified control of substrate steering toward the catalytic center. The active site Cu2+ displays a distorted coordination sphere due to an unusually long

bond to the metal-bridging residue His61. Inspection of the crystal packing does not show regions of extended contact indicative of a dimeric assembly. The molecular surface region involved in subunit dimerization in eukaryotic **superoxide dismutases** is structurally altered in E-**SOD** and displays a net polar nature.

AN 1998:75327 BIOSIS
DN PREV199800075327
TI Unique structural features of the monomeric Cu,Zn **superoxide dismutase** from Escherichia coli, revealed by X-ray crystallography.
AU Pesce, Alessandra; Capasso, Clemente; Battistoni, Andrea; Folcarelli, Silvia; Rotilio, Giuseppe; Desideri, Alessandro; Bolognesi, Martino (1)
CS (1) Cent. Biotecnologie Avanzate-IST, Dipartimento di Fisica and INFM, Universita di Genova, Largo Rosanna Benzi 10, 16132 Genova Italy
SO Journal of Molecular Biology, (Dec. 5, 1997) Vol. 274, No. 3, pp. 408-420. ISSN: 0022-2836.
DT Article
LA English

L16 ANSWER 21 OF 26 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.DUPLICATE 5
AB Copper-zinc **superoxide dismutases** (Cu,Zn **SODs**), until recently considered very unusual in bacteria, are now being found in a wide range of gram-negative bacterial species. Here we report the cloning and characterization of sodC, encoding Cu,Zn **SOD** in **Actinobacillus pleuropneumoniae**, a major pathogen of pigs and the causative organism of porcine pleuropneumonia. sodC was shown to lie on a monocistronic operon, at the chromosomal locus between the genes asd (encoding aspartate semialdehyde dehydrogenase) and recF. The primary gene product was shown to have an N-terminal peptide extension functioning as a leader peptide, so that the mature Actinobacillus enzyme, like other bacterial examples, is directed to the periplasm, where it is appropriately located to dismutate exogenously generated superoxide. While the role of these secreted bacterial **SODs** is unknown, we speculate that in A. pleuropneumoniae the enzyme may confer survival advantage by accelerating dismutation of superoxide derived from neutrophils, a central host defense response in the course of porcine infection.

AN 1997:21146 BIOSIS
DN PREV199799320349
TI Cloning and molecular characterization of Cu,Zn **superoxide dismutase** from **Actinobacillus pleuropneumoniae**.
AU Langford, Paul R.; Loynds, Barbara M.; Kroll, J. Simon (1)
CS (1) Molecular Infectious Diseases Group, Imperial Coll. Sch. Med. St. Mary's, London W2 1PG UK
SO Infection and Immunity, (1996) Vol. 64, No. 12, pp. 5035-5041. ISSN: 0019-9567.
DT Article
LA English

L16 ANSWER 22 OF 26 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AN 1996:259794 BIOSIS
DN PREV199698815923
TI Cloning, sequencing and expressing of Mn and Cu,Zn **superoxide dismutases** from **Actinobacillus pleuropneumoniae**.
AU Helie, M.-C. (1); Sirois, M.; Quellette, C. (1); Verret, L. (1); Boissinot, M. (1)
CS (1) Univ. Laval, Ste-Foy, PQ Canada
SO Abstracts of the General Meeting of the American Society for Microbiology, (1996) Vol. 96, No. 0, pp. 246.
Meeting Info.: 96th General Meeting of the American Society for Microbiology New Orleans, Louisiana, USA May 19-23, 1996

ISSN: 1060-2011.
DT Conference
LA English

L16 ANSWER 23 OF 26 MEDLINE
AB The Gram-negative bacterium **Actinobacillus pleuropneumoniae** is the etiologic agent of swine pleuropneumonia, a highly contagious respiratory infection with great economic implications. In recent years, considerable efforts have been invested in the study of its virulence mechanisms. Here we review the current knowledge on the determinants of A. pleuropneumoniae pathogenicity, paying particular attention to the capsule, the lypopolysaccharide, the outer membrane proteins, and the RTX exotoxins. The contribution of other factors is also discussed.
AN 96330990 MEDLINE
DN 96330990 PubMed ID: 8767702
TI Virulence factors of the swine pathogen **Actinobacillus pleuropneumoniae**.
AU Tascon R I; Vazquez-Boland J A; Gutierrez-Martin C B; Rodriguez-Barbosa J I; Rodriguez-Ferri E F
CS Departamento de Patologia Animal-Sanidad Animal, Facultad de Veterinaria, Universidad de Leon, Espana.
SO MICROBIOLOGIA, (1996 Jun) 12 (2) 171-84. Ref: 101
Journal code: 8904895. ISSN: 0213-4101.
CY Spain
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, ACADEMIC)
LA English
FS Priority Journals
EM 199704
ED Entered STN: 19970424
Last Updated on STN: 19970424
Entered Medline: 19970417

L16 ANSWER 24 OF 26 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.DUPLICATE 6
AB Copper- and zinc-containing **superoxide dismutases** ((Cu,Zn)-**SODs**) are generally considered almost exclusively eukaryotic enzymes, protecting the cytosol and extracellular compartments of higher organisms from damage by oxygen free-radicals. The recent description of a few examples of bacterial forms of the enzyme, located in the periplasm of different Gram-negative micro-organisms, prompted a re-evaluation of this general perception. A PCR-based approach has been developed and used successfully to identify bacterial genes encoding (Cu,Zn)-**SOD** in a wide range of important human and animal pathogens - members of the Haemophilus, Actinobacillus and Pasteurella (HAP) group, and Neisseria meningitidis. Comparison of (Cu,Zn)-**SOD** peptide sequences found in Haemophilus ducreyi, **Actinobacillus pleuropneumoniae**, Actinobacillus actinomycetemcomitans, Pasteurella multocida, and N. meningitidis with previously described bacterial proteins and examples of eukaryotic (Cu,Zn)-**SOD** has shown that the bacterial proteins constitute a distinct family apparently widely separated in evolutionary terms from the eukaryotic examples. The widespread occurrence of (Cu,Zn)-**SOD** in the periplasm of bacterial pathogens, appropriately located to dismute exogenously derived superoxide radical anions, suggests that this enzyme may play a role in the interactive biology of organisms with their hosts and so contribute to their capacity to cause disease.
AN 1995:532743 BIOSIS
DN PREV199598547043
TI Bacterial (Cu,Zn)-**superoxide dismutase**: Phylogenetically distinct from the eukaryotic enzyme, and not so rare after all.

AU Kroll, J. Simon (1); Langford, Paul R.; Wilks, Kathryn E.; Keil, Anthony D.
CS (1) Mol. Infect. Dis. Group, Dep. Paediatr., Imperial Coll. Sci. Technol. Med., St. Mary's Hosp., London W2 1PG UK
SO Microbiology (Reading), (1995) Vol. 141, No. 9, pp. 2271-2279. ISSN: 1350-0872.
DT Article
LA English

L16 ANSWER 25 OF 26 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AN 1996:138170 BIOSIS
DN PREV199698710305
TI **Actinobacillus pleuropneumoniae** encodes a periplasmic copper zinc **superoxide dismutase**.
AU Langford, P. R.; Kroll, J. S.
CS Molecular infectious Diseases Group, Dep. Paediatr., St. Mary's Hosp. Med. Sch., London W2 1PG UK
SO Donachie, W. [Editor]; Lainson, F. A. [Editor]; Hodgson, J. C. [Editor]. (1995) pp. 205. Haemophilus, Actinobacillus, and Pasteurella. Publisher: Plenum Press 233 Spring Street, New York, New York, USA. Meeting Info.: Third International Conference on Haemophilus, Actinobacillus, and Pasteurella (HAP94) Edinburgh, Scotland, UK 1994 ISBN: 0-306-45104-2.
DT Conference
LA English

L16 ANSWER 26 OF 26 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.DUPLICATE 7
AN 1992:173553 BIOSIS
DN BR42:78553
TI RECF IN **ACTINOBACILLUS-PLEUROPNEUMONIAE**.
AU LOYNDS B M; LANGFORD P R; KROLL J S
CS MOL. INFECTION DIS. GROUP, DEP. PAEDIATR., INST. MOL. MED., UNIV. OXFORD, JOHN RADCLIFFE HOSP., OXFORD OX3 9DU, UK.
SO Nucleic Acids Res., (1992) 20 (3), 615. CODEN: NARHAD. ISSN: 0305-1048.
FS BR; OLD
LA English

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1: J Mol Biol 1997 Dec 5;274(3):408-20 Related Articles, Links

PLESEVIER SCIENCE FULL-TEXT ARTICLE

Unique structural features of the monomeric Cu,Zn superoxide dismutase from Escherichia coli, revealed by X-ray crystallography.

Pesce A, Capasso C, Battistoni A, Folcarelli S, Rotilio G, Desideri A, Bolognesi M.

Dipartimento di Fisica and INFM, Universita' di Genova, Largo Rosanna Benzi, 10, 16132 Genova, Italy.

The first three-dimensional structure of a functional monomeric Cu, Zn superoxide dismutase (from Escherichia coli, E_SOD) is reported at 2.0 A resolution (R-factor=16.8%). Compared to the homologous eukaryotic enzymes, E_SOD displays a perturbed antiparallel beta-barrel structure. The most striking structural features observed include extended amino acid insertions in the surface 1, 2-loop and S-S subloop, modification of the disulfide bridge connection, and loss of functional electrostatic residues, suggesting a modified control of substrate steering toward the catalytic center. The active site Cu2+ displays a distorted coordination sphere due to an unusually long bond to the metal-bridging residue His61. Inspection of the crystal packing does not show regions of extended contact indicative of a dimeric assembly. The molecular surface region involved in subunit dimerization in eukaryotic superoxide dismutases is structurally altered in E_SOD and displays a net polar nature.

PMID: 9405149 [PubMed - indexed for MEDLINE]